Box 2. Revisions of inflation projections of some central banks

Over the last years, central banks have repeatedly revised their inflation projections amid shocks with global spill-over effects (Chart A). Under the circumstances, the broad-based persistence of inflation rates at levels below the reference levels used in defining price stability was attributed to the overlapping of significant falls in international commodity prices (starting with the second half of 2014), simultaneously with the slow recovery of aggregate demand in the post-crisis period. Despite these globally reaching shocks, the magnitude of revisions and, implicitly, that of forecast errors were also influenced by idiosyncratic aspects – the specific channels whereby shocks are passed through on the domestic front, also against the background of the heterogeneous structure of CPI baskets across different economies. Over the same period of time, however, region-specific shocks added to global ones. For instance, across EU countries, an additional disinflationary impulse was generated by the persistent excess supply of agri-food items created on this market following Russia's ban in 2014 extended subsequently to Turkey in 2016.

In both Romania and Poland, idiosyncratic aspects caused annual CPI inflation rate to post negative levels at end-2015, while in case of other countries (Hungary, the Czech Republic, the USA or the euro area) the indicator remained positive or was almost nil. The negative CPI inflation values implied, *caeteris paribus*, wider deviations of actual inflation from the central targets for the two economies (Table B).

In spite of the high sensitivity of the domestic consumer price dynamics in Romania (and Poland) to changes in energy and food prices (Table A) – categories of prices directly affected by global shocks –, the negative inflation in the Romanian economy was attributed to certain domestic developments whose effects occurred at the same time and acted in the same direction as those on international markets.

Table A. Shares in CPI in 2015

percent

	Food items and non-alcoholic beverages	Energy
Romania	36.3	18.3
Poland	24.4	17.6
Hungary	21.3	16.0
Czech Republic	18.1	13.4

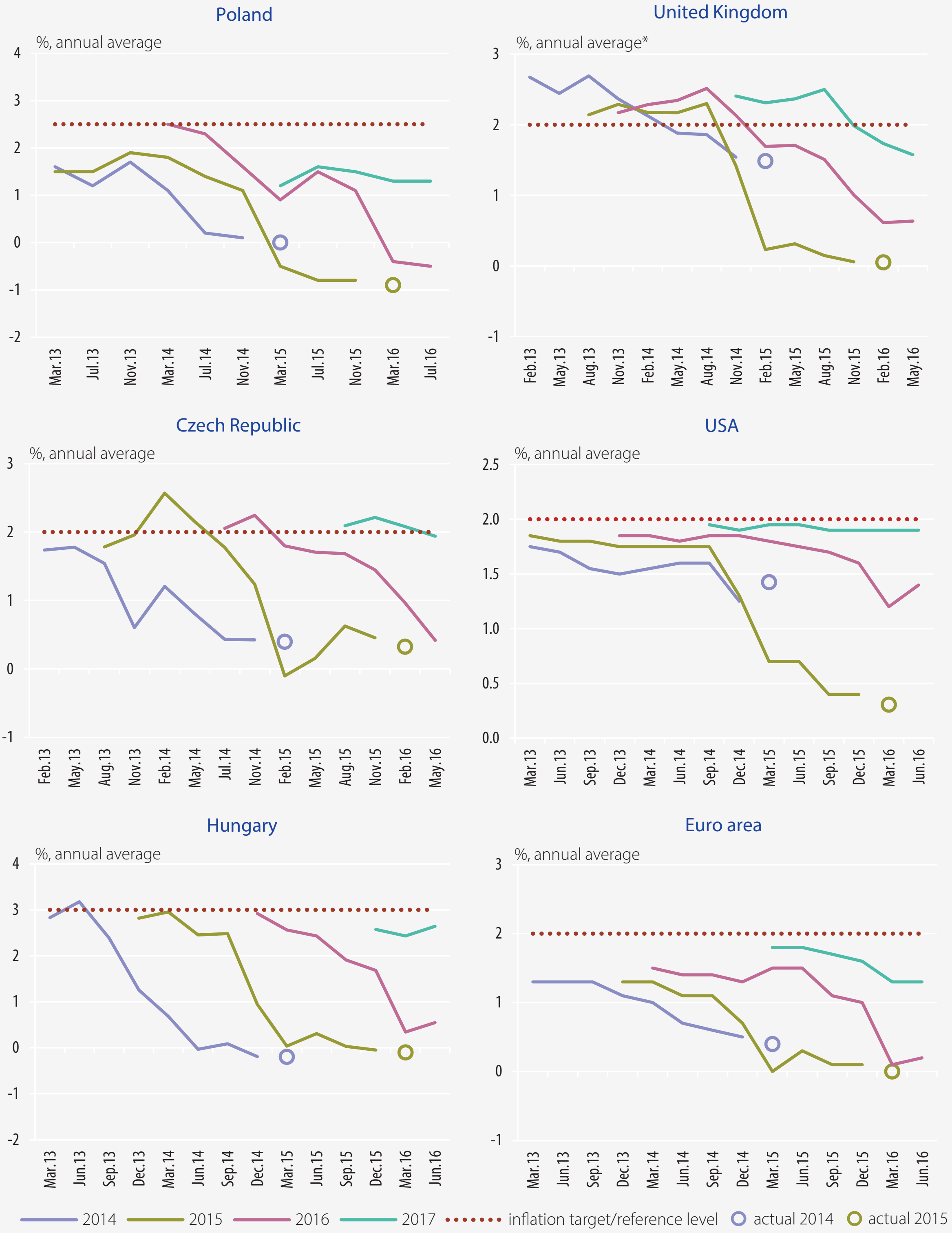
Source: OECD, NIS, NBR calculations

Thus, in the period under review, fiscal authorities proceeded to successively cutting VAT rates in September 2013, June 2015 and January 2016, ahead of another cut scheduled for January 2017. Removing the first-round effect associated with broadening the scope of the reduced VAT rate as of 1 June 2015[60] – given its transitory nature[61] –, the annual CPI inflation rate at end-2015 would have been positive and would have fallen inside the variation band of the target. Even under the circumstances, the consecutive revisions of inflation projections would have followed a downward trend (Chart B) amid an increasing spillover of disinflationary shocks from the external environment. In other words, under a hypothetical scenario assuming the absence of the mentioned fiscal measures, in Romania, the actual inflation path would have been below the central target (2.5 percent) both in 2014 and 2015, as a result of the global disinflationary factor and in line with all countries under review (in Chart A, the actual inflation rates were significantly lower than the reference levels used in defining price stability, showing a tendency to persist at low levels in the future as well).

[60] The measure envisaged the broadening of the scope of the reduced VAT rate to all food items, non-alcoholic beverages and food service activities and entailed a first-round impact assessed by the NBR at -2.8 percentage points.

[61] Effects which are manifest in the annual CPI inflation rate for a 12-month period.

Chart A. Revisions of Inflation Projections of Some Central Banks Starting 2014

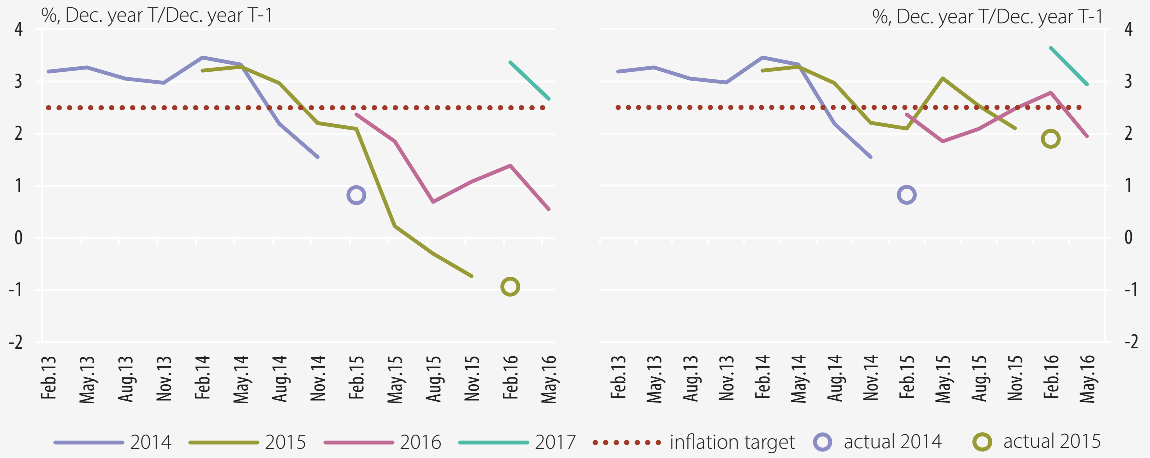


*) approximated by averaging quarterly forecasts

Note: The line corresponding to one year stands for a central bank's successive forecasts for that particular year.
The Ox axis features the forecast release dates.

Source: AMECO, central banks, NBR calculations

Chart B. Revisions of the NBR's Projections of CPI Inflation (left-hand panel) and of CPI Inflation Net of the First-round Effect of VAT Rate Changes (right-hand panel) Starting 2014



Source: NIS, NBR calculations

Except Romania, the only country among the Central and Eastern European countries covered by this analysis which proceeded to cutting indirect taxes in the period under review was the Czech Republic in early 2015, when a second reduced VAT rate of 10 percent was implemented for medicines, books and irreplaceable infant food. However, the extremely low impact of this measure on the annual CPI inflation rate (approximately -0.1 percentage points[62]) is not likely to reconfigure the direction and magnitude of revisions made to the inflation forecasts presented in Chart A.

Table B shows the deviations of the inflation rates from central targets recorded by several central banks in 2014 and 2015 (years significantly affected by external disinflationary shocks). For Romania, the deviation seen in 2014 reflected, apart from the influence of external shocks on fuel and food prices, the evolution of administered prices in 2014, in the context of legislative changes in the field that were implemented in the second half of the year. For 2015, looking at the annual inflation rate net of the effect of the VAT rate cut, the deviation from the central target was still negative, but, in absolute value, stood below the average deviation shown in the panel (-2.0 percentage points).

Table B. CPI Inflation Deviation from the Reference Level

	2014	2015
Romania	-1.7	-3.4
Romania*	-1.7	-0.6
Hungary	-3.2	-3.1
Czech Republic	-1.6	-1.7
Czech Republic*	-1.6	-1.6
Poland	-2.5	-3.4
UK	-0.5	-1.9
Euro area	-1.6	-2.0
USA	-0.6	-1.7

* calculations made for CPI inflation excluding the direct impact of VAT rate changes

To sum up, the materialisation of strong and persistent supply-side shocks, which are difficult to predict, is likely to induce high volatility in both the actual inflation and the central banks' forecasts. The high volatility diminishes the accuracy of projections, thereby also affecting the quality of information provided to monetary-policy makers.

62 According to Inflation Report II/2015 available on the Czech National Bank's website.